



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE LABOR TURN-OVER AND THE HUMANIZING OF INDUSTRY

BY JOSEPH H. WILLITS,

Instructor in Industry, Wharton School, University of Pennsylvania.

While the social and economic doctors are holding clinics over the ills that have flowed in the wake of the industrial revolution, some attention may profitably be given to the question "Wherein will industry humanize itself?" While we are pondering over the whereabouts of the dividing line that separates those industrial evils which can only be eliminated by a greater degree of paternalistic government regulation, from those other evils whose eradication is so profitable that it can safely be left to individual initiative, it may be worth while to point out some spheres in the industrial field where more efficient management is just beginning to realize that there has been an unsuspected under-appreciation of the human resources. In other words, this article will attempt to point out at least one chief field where management is cutting down its own net profits by its failure to show sufficient consideration and regard for its employees.

To some extent management has been led into a general under-appreciation of the human factors by the development of machinery and the resultant simplification of tasks. Not long ago, I heard a nation-wide authority on the subject of the human side of industrial management, draw an analogy between war and industry. In war, before the invention of gunpowder, cannon, etc., the individual in battle was of supreme importance. Victory depended upon the strength and number of individual fighters. With the gradual "improvement" of our implements of destruction, from the days of the bow and arrow to the present seventy-five millimeter guns, the individual, as the winner of battles, has seemed to lose importance. The power of war machines came to accomplish a destruction apparently beyond the efforts of either man-quantity or man-quality. However, the experience of the present war has shown that, while the big guns can knock to pieces any fortification, there are relatively few places where the immense guns can be satisfactorily mounted.

Without control of these positions, the big guns are of little value. For the possession of such places the infantry must fight—man-power must win. The unit fighter has again become the important factor in the ultimate victory. The importance of the individual, apparently hopelessly dimmed by the big machines of destruction, again stands out as in the days of the bow and arrow.

A similar swing of the pendulum is to be noticed in industry. Big business after the first rush of growing big and using big machinery is beginning to wonder whether industry itself may not have lost something by its blind attention to the machine at the expense of the individual. The men with vision, who lead to the industrial world, see more and more clearly that it is the strength, skill, and willingness to coöperate on the part of the individual worker behind the machine that determines whether we shall get 40 per cent or 50 per cent or 90 per cent efficiency out of our imposing equipment of plant and machinery. Industry has failed to make use of its human assets.

One of greatest losses of human resources is in the excessive labor turn-over. By labor turn-over is meant the number of hirings and firings in a plant and the relation which that bears in a year to the total number employed. It is to this form of wastage of the human resources that this article refers.

The waste that is involved in the excessive amount of hirings and firings has been described as the "biggest waste that is occurring today" in the human side of management. One Philadelphia manufacturer to whom I wrote sums up the situation by saying, "You have absolutely put your finger on the sore spot in manufacturing today." One authority estimates that the average firm takes on each year as many new hands as are included in its normal working force—*i. e.*, it has a hundred per cent labor turn-over. The best large-scale study that has been made of the size of the labor turn-over and the loss that is thereby involved, has been made among a large number of employing concerns in the United States and Europe, by Magnus Alexander, head of the training schools of the Great Electric Company. Mr. Alexander's study,¹ which covered firms employing all grades of labor, shows that the number of employees in the firms considered, increased during the course of the year 1912

¹ See address delivered before National Machine Tool Builder's Association, New York City, October 22, 1914.

only 8,128 (from 38,668 to 46,796). Yet the records show that during the same period 44,365 people were engaged, indicating that 36,237 people had dropped out of employment during the year. In other words about five and one half times as many people had to be engaged during the year as constituted the permanent increase of force at the end of that period. Of all these people engaged, 73 per cent were entirely new employees.

Allowing for vacancies due to death, sickness and other unavoidable causes, as well as increases in the force, Mr. Alexander estimates the number of necessary hirings to be at least 22,140. But, "What should be said, however, of the fact that 22,225 were engaged above the necessary requirements?" Basing his statement on approximate figures furnished by the firms under investigation, and dividing the workers up into different groups, Mr. Alexander estimates the loss incurred by these firms, through the unnecessary hiring of employees, as approximately \$775,000.

A study of a representative carpet firm in the Philadelphia textile district shows similar results. In that firm, one-half of all the persons hired in the period from 1907 to 1915 remained less than ten weeks. Seventy-four per cent of all hired remained less than one year. (See Fig. 1.) The foreman testified that "hands didn't begin to do good work for eight weeks."

More significant than the actual cost of high labor turn-over, is the fact that the average firm has no definite knowledge of this cost and even very little appreciation of its existence. Firms have frequently assured me, with some show of pride, that, "while what you say may be true of some firms, our turn-over does not amount to over 10 or 15 per cent." Yet, time and again, investigation showed that the actual turn-over in these firms ranged from 50 to 100 or even 200 per cent. The lack of appreciation of this human-resource leak by the Philadelphia carpet firm noted above is illustrated by the fact that the records of employment-duration had never been compiled, although the foreman kept a record of the dates on which individuals entered and left the employ of the firm. During the process of compiling these records, the foreman manifested considerable interest; and, on seeing the results, remarked "Who'd a'thought it?" Even more significant of the under-appreciation of the size and cost of the labor turn-over, are the results of a canvass made of firms on twenty squares of one of the leading

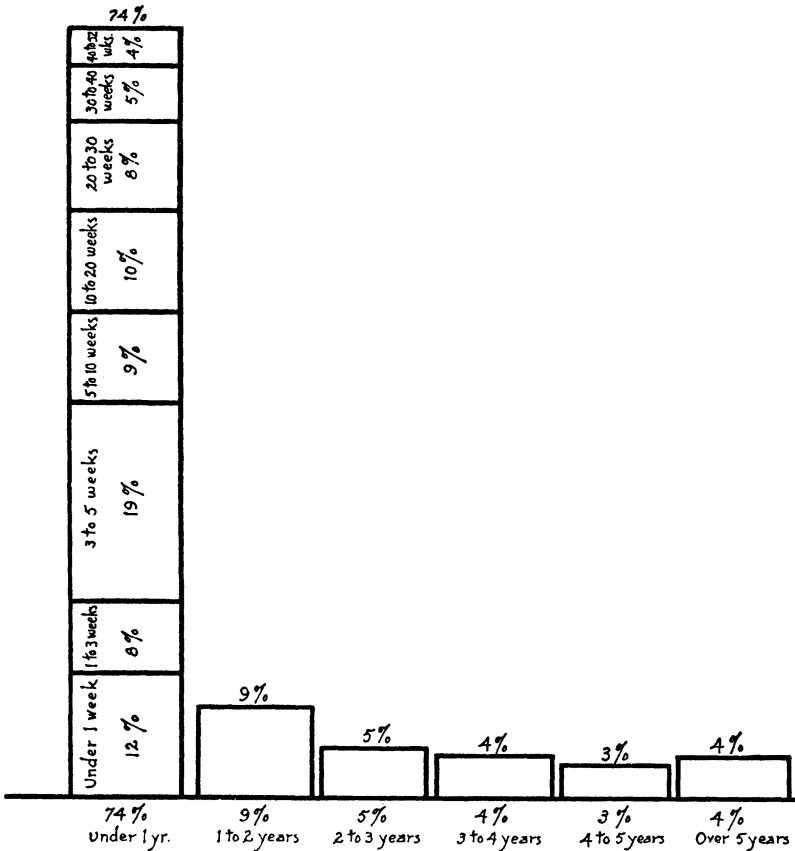


Fig. 1—Chart showing length of time male employees hired from 1907 to 1915 remained in the employ of one representative Axminster carpet firm in Philadelphia. The chart for female employees shows almost identical results.

streets in the textile district of Philadelphia. This canvass showed that of the twelve firms interviewed, eleven had no idea or record of the number of persons hired and fired during the year. The twelfth was so small that the number of new hirings during the year was easy to remember.

It is inevitable that, with time and especially as a result of the awakening that is taking place in industrial management, ignorance and disregard of this waste will gradually give way before a general enlightened attack. There is no question but that it can be reduced if the serious attention of employers is directed towards this problem. The experience of one Philadelphia firm in this connection is significant. In 1912 the firm was running with a force of about 800, and during the year, hired 799. About this time the firm began to realize the seriousness of the turn-over problem and to make a definite attack on it. A steady reduction of the labor turn-over resulted until, in 1914, although the working force now numbered 1,000 employees, only 186 persons were hired during the year. In other words the turn-over in three years was reduced from 100 to 19 per cent.

The mere reduction of labor turn-over is fraught with the most far-reaching human results. A 50 per cent reduction of labor turn-over would, if general, diminish by half the flow of employees from shop to shop; would diminish by half the frequency of the heartrending, degenerating hunt for a job. How degenerating this frequent shift from job to job is, may be illustrated by the case that was told me of a man who was forced, through unfortunate circumstances, to change his job eight times in the course of one year. At the end of that time he drifted back to his first employer. This employer ascertained that his efficiency had diminished by one-half from that cause alone. A 50 per cent reduction of this torrent of labor through factories, would mean a longer chance to acquire skill in one job; a better chance for the development of a personal relationship between employer and employee; and would mean, finally, that the labor reserve of each particular industry would be reduced, since the chance for the casual worker would be less.

Of even more significance than the mere reduction of labor turn-over, so far as human results are concerned, are the methods by which firms are attacking the labor turn-over leakage. Broadly speaking, if employees are to be held by a firm, more consideration must be

shown them. It will pay the employer to show more regard for his employees' interests—a fundamental force toward the humanizing of business. This regard includes a wide category of things, all the way from better wages to insurance policies and Maxfield Parrish pictures.

From among this wide variety of devices, the four following devices are selected as being the most effective in reducing labor turn-over and the most potent for obtaining human results:

1. Improvement in the methods of hiring and firing.
2. Improvement in the methods of training employees.
3. Reduction of fluctuations in employment.
4. Better wages.

1. The Methods of Hiring and Firing

The improved method of hiring and firing most widely recommended is the transfer of the authority in part or in whole from the foreman to a functionalized employment department² in charge of a high grade man, directly responsible to the heads of the concern. Anyone who has had the opportunity to inspect at close range the duties and mental calibre of the average foreman, must at once recognize that any step that will guarantee more intelligent supervision of the relations between the foreman and his employees, especially in such fundamentals as the hiring and firing of help, will work toward the humanizing of industry. A man of narrow experience and narrower mental concepts, this man usually has one thousand and one other duties to perform so that the hiring of help is purely an incidental thing. The result is that the job and the man may or may not fit each other—to the mutual injury of employer and employee. An extreme illustration of the result of leaving the ultimate power of hiring with the foreman may be found in the case of the Philadelphia textile factory, which advertised that on a certain day it expected to take on a number of weavers. On the morning indicated, a large crowd of applicants had assembled. When the doors opened, each of those in front rushed in and grabbed a machine. That was all the "choosing" there was.

The withdrawal from the foremen of the power of choosing the new help means that the firm is taking more responsibility for seeing that the square peg is put in the square hole so that it is better

² See Mr. Hopkin's article on page 112 of this volume.

satisfied to remain there. In short, the better run firms are appreciating that a man in a misfit job means not merely a discouraged worker and perhaps a mis-spent life but also a definite money loss to them. Hence many firms are assuming the responsibility for intelligent vocational guidance.

The average foreman is just as incapable of human and efficient firing as of judicious hiring. The foreman usually has risen from the ranks and his view is correspondingly narrow, which means that his sense of justice is apt to be low and his sense of prejudice high. To preserve his own power, he is apt to retain favorites, and fire good men because he sees in them possible rivals. He often feels that he has to fire some one about every so often to keep the "Fear of God in their hearts." The effort to establish supervision of the foreman's acts, that will be close and intelligent enough to reduce effectively the excessive firing, will necessarily involve a supervision from the same intelligent source of all the personal relations of the foreman and the worker. To realize the humanizing gain that will result from bringing the greater sympathy and brains of the actual heads closer to the workers, one must realize that a surprisingly large percentage of labor difficulties are occasioned solely by misunderstandings which arise from the arbitrary acts of some autocrat foreman, and not by any fundamental conflict with the real heads of the concern. How great this gain is, is illustrated by a few cases, the like of which may be duplicated in thousands from our industrial experience. An Illinois manufacturer "became aware of the real facts too late when he discovered that a serious strike had grown out of the arbitrary enforcement by a foreman of a useless foreman-made rule that certain three doors must be kept closed." A high official of one of the largest business concerns in Philadelphia once said, "I have seen my foremen do things over and over again that were absolutely cruel." A large lace manufacturer told the secretary of the National Lace Weavers' Association that he had more strikes as a result of the arbitrary and senseless acts of foremen than from any other cause. The more progressive firms are realizing that allowing the foreman, way down the line, to formulate the hiring and firing policy of the firm is poor business.

Progress in this direction is only just beginning. Even the existing functionalized employment bureaus are recognized as being, "underpaid, under-manned, under-intelligenced, and under-

equipped." Among the great majority of firms, the choosing of help is still in the entire charge of the foremen of departments. In the canvass of the twelve firms lying along twenty squares of one street in the textile district of Philadelphia, eight left the hiring and firing absolutely to the foremen, and three followed the same policy with slight supervision by the superintendent, whenever the foremen's methods should *appear* inefficient. In the twelfth concern, the head of the firm did the hiring.

2. *The Methods of Training Employees*

The second general cause for an unnecessarily high labor turn-over is the general lack of effective training systems. With the simplification of work due to the introduction of machinery, we have been carried away by the apparent lack of need for training. In many, if not a majority of cases, the only training the employee secures is the chance to watch some one else. I know of one textile mill, which is representative of many, where the older weavers are given \$1.00 a month extra to "train" new weavers. Not only do accurate costs accounting methods point out that such a system means low-grade work, spoiled goods, insufficient wages, and reduced output; but accurate employment statistics show that the man on whom no effort has been expended to make him fit for his job, is apt to be dissatisfied and, therefore, a "rover." Here also high labor turn-over is causing industry to adopt devices that have a broader human application than the simple reduction of labor turn-over.

3. *Reduction of Fluctuations in Employment*

In the third place, a sincere effort to reduce the labor turn-over involves an effort to make the productive situation of a plant uniform or as nearly uniform as possible throughout the year, because "part-time" or "time-off" is one of the chief forces contributing to a high labor turn-over.

To the worker, unemployment is the most inhuman characteristic of industry. What famine and black plague were to the middle ages, so is unemployment to the modern industrial world.³ In view of the almost total lack of any definite knowledge on this subject, the figures of the New Jersey State Bureau of Statistics of

³ See Miss Van Kleeck's article on page 90 of this volume.

Labor and Industry, which show that New Jersey plants ran at 74 per cent of normal operating capacity in the prosperous year of 1912, may be taken as typical. Superficially, unemployment is a problem of irregularity in production. That irregularity in production is partly a question of distribution and partly a question of production. To the extent that the small purchasing power of those who spend, *i.e.*, the working classes, makes it take four days to use what we can make in three days, unemployment may be a question of distribution, of underconsumption. To the extent that this irregularity in production is due to seasons, to changes in style, and the decadence of certain industries, unemployment is a question of production, of management. Obviously the increase of enlightenment in management will call employers' attention more definitely to the many losses from unemployment, one of the greatest of which is the disorganization of the labor force. As the sense of this and parallel losses spreads, the narrow and fatalistic concept of the power of the individual manager over fluctuations in employment will pass away.

The future attitude of employers toward the question of the steadying of employment⁴ and production is very well summed up in the following statement by a well-known firm which made efforts in that direction:

What we have accomplished in the direction of leveling the curve of seasonal work has been done chiefly through the selling end.

Our business in jewelers' boxes used to be extremely difficult because practically all of the output was made to order and work could seldom be started until May or June, and had to be completed well before Christmas. Our factory, therefore, used to be out of work from the middle of December up to the middle of May, and so seriously over-crowded from that time on that poor service was frequently given customers and our business considerably damaged. A few years ago we began to make earnest efforts to get box orders in earlier. After the first year or so of re-adjusting, we found our customers more than willing to help in this work so that today the majority of our orders reach us between the 1st of January and the 1st of June. This requires facilities for holding the goods until the date desired by the customer for shipping and of course ties up capital, but we are able to keep experienced workers busy the year through, are able to give almost perfect satisfaction in service to our customers, and through the consequent savings and increased business the cost of carrying the goods has been covered several times over.

⁴ See Mr. Cooke's article on "Scientific Management as a Solution of the Unemployment Problem," on page 146 of this volume.

One striking effect which went way beyond our expectations was the improvement in quality of our output, which under the old system suffered more than we realized through the work of untrained hands and the crowding and strain of the fall season.

Our line of Christmas specialties has been handled in the same manner, though an easier problem, because none of these goods are made to order. Designs for Christmas 1915 were chosen in July, 1914, then approved and laid out as to the way they should be put up, etc., so that the sample run could be ready by March, 1915. The goods are then sold for fall delivery and the stock manufactured during the first six months of the year.

We have found it possible once or twice to add to our line an item or two that could be made to fill in a gap in regular employment; for example, we introduced Christmas cards printed with steel die in order to keep our die-printing crew at work during a slack three months.

Again, we have made good progress by substituting stock items for specials. For example, certain goods of a standard type, ordered periodically by our sales end, were manufactured special as the calls came in—sometimes in dull times, but more often during a rush period. By selecting certain lines and manufacturing a sufficient stock during the dull months the situation has been greatly relieved.

The containers which are used for our merchandise were formerly made by us at different intervals, but under the new plan the entire quantity is manufactured during the first three months of the year. Many other moves of this sort tend toward further relief.

Our problems are undoubtedly easier than those of some other industries; however, we feel from our experience that if the advantages of regularizing employment became appreciated by the employer, some possible steps will suggest themselves and these will in turn further steps so that considerable improvement, if not a big cure, can be effected.

4. Better Wages

It does not seem possible to avoid the conclusion that one of the advantages necessarily resulting from the reduction of labor turn-over, will be that of better annual remuneration. If this does not come about through better rates of pay, it will come through the greater efficiency of workers who result from the better training systems; and through the steadier employment that will result from the attack on the regular fluctuations of employment. It is worth while to point out that one of the devices used by the Philadelphia firm, who reduced its turn-over in three years from 100 to 19 per cent, was a slightly higher scale of wages.

These are the chief internal organization methods used by individual firms to reduce excessive labor turn-over. Outside of their internal organization there is plenty of evidence that a new

attitude towards labor problems is coming about as the labor turn-over education spreads. One of the most pregnant of these bits of evidence is the formation in Boston, New York and Philadelphia of associations of employers for the discussion and interchange of experiences regarding employment problems.⁵ One of the primary problems confronting these associations, in fact, the one which in some cases furnished the potent argument for the formation of such an association, was the problem of labor turn-over.

Another evidence of this significant tendency in modern industry is to be found in the work of Robert G. Valentine, of Boston.⁶ Mr. Valentine makes for industrial and commercial plants a "human audit" that is comparable in every way to the physical and financial "audits" made by the majority of firms. These audits show countless ways by which firms are incompletely realizing on their human assets through sheer obtuseness in management, largely the result of an incomplete knowledge and analysis of the actual facts within their own plant.

How far these tendencies will carry us in the humanizing of industry, we cannot say. They may, however, be sufficient for justifying more optimism than is at times felt.

⁵ See Mr. Bloomfield's article on "The New Profession of Handling Men," on page 121 of this volume.

⁶ See article "The Human Audit" in *Harper's Weekly*, July 17, 1915.